SILICON ON INSULATOR DEVICE HAVING TRENCH ISOLATION LAYER AND MEHOD FOR MANUFACTURING THE SAME

Abstract of the Disclosure

A silicon-on-insulator (SOI) device and a method for manufacturing the same includes a substrate, which includes a base layer, a buried oxide layer, and a semiconductor layer, and an isolation layer which is formed in a trench that defines an active region on the semiconductor layer. The trench comprises a first region having a depth smaller than the thickness of the semiconductor layer and a second region having a depth as much as the thickness of the semiconductor layer. The isolation layer includes an oxide layer and a nitride liner that are sequentially formed along the surface of the trench and a dielectric layer that fills the trench.

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